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## ABSTRACT

This study examines the impact of job-relevant information on search behavior of males and females, and compares the findings with those obtained in the Ullman and Gutteridge studies. The data were obtained from two questionnaires and by monitoring the operations of the Purdue University computerized teacher placement bureau. The subjects of the study were 85 inexperienced persons completing their bachelors or masters degrees in education, who were seeking their first teaching jobs in public or private schools. The 40 control subjects and the 45 experimental subjects received the same kinds of information regarding job vacancies from the placement bureau. But the experimental subjects also received additional information concerning the quality of the jobs offered. Job search and job choice behavior of the subjects were observed in terms of five dependent variables: (a) number of job opportunities; (b) length of job search; (c) salary for job accepted; (d) satisfaction with the job accepted; and (e) satisfaction with service provided by the placement bureau. Results indicated that male and female applicants made differential use of job-relevant information available to them, and that the impact of such information on job-search behavior and resulting outcomes was greater for males than for females. (A list of references is included.) (JS)

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FOR COLLEGE GRADUATES: A POST HOC  
ANALYSIS AND SOME NEW INSIGHTS

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**September 1974**

## JOB SEARCH IN THE LABOR MARKET FOR COLLEGE GRADUATES:

### A POST HOC ANALYSIS AND SOME NEW INSIGHTS<sup>1,2</sup>

In two recent papers by Gutteridge and Ullman (1973) and Ullman and Gutteridge (1974) the researchers discussed some of the ramifications of the notion of returns to job search for MBA graduates. Their findings supported views that (a) greater job search will have a higher payoff in the form of a higher salary offer, (b) more intensive information leads to greater job satisfaction, and (c) more intensive information leads to longer tenure on the initial job and higher satisfaction with career progress. This article reports on a research study that examined several issues related to the returns to job search for school teachers, and thus provides data from a different setting. The findings of this study, in conjunction with those of the Gutteridge-Ullman studies, should provide new insights into the job search behavior of different subpopulations of college graduates.

To date, however, very little research has been reported which examined the job search patterns and payoffs for different labor market subgroups. While there is a rather large body of literature dealing with occupational choice (e.g., see Blau, 1956; Holland, 1959; Klandor and Zytowski, 1969), there is a rather limited amount of literature on organization choice (e.g., see Vroom, 1966; Pieters, Hundert, and Beer, 1968; Glueck, 1974). Moreover, within this limited literature on organization choice, there is a scarcity of studies concerning organizational choices of different labor market subgroups. The focus of the present study was to examine

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the job search patterns and payoffs for male and female job applicants for private and public school teaching positions.

Although there is not much reported in the literature concerning sex differences in job search patterns, several studies have been reported which examined the issues of sex differences in job orientation. Saleh and Lalljee (1969) found no sex differences in job orientation among university students who were asked to choose between pairs of extrinsic and intrinsic job characteristics nor did they find sex differences in job orientation in a second sample of public school teachers. However, a third sample of a large service-oriented organization showed significant sex differences in job orientation. These differences later disappeared when the researchers controlled for job level and education of the subjects. It was found that intrinsic orientation was positively correlated with job level, regardless of sex.

In two studies by Burke (1966 a,b) it was found that college males and females had similar job values and that both sexes ranked intrinsic job characteristics higher than extrinsic job characteristics. Centers and Bungental (1966) found that males and females did not differ in their preferences for either intrinsic or extrinsic job factors.

Noting the possibility of masking sex differences in job orientation by framing the research in terms of extrinsic and intrinsic job factors, Manhardt (1972) developed a list of 25 job characteristics which he used to determine the job orientations of males and females in similar

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kinds of jobs. The subjects in the study had all been hired for similar jobs at the same level in a particular organization. Manhardt factor analyzed the results which produced three main factors: long-term career objectives (Factor 1), working environment and interpersonal relationships (Factor 2), and intrinsic job characteristics (Factor 3). The data indicated that males tended to give higher ratings to items related to Factor 1, females tended to give higher ratings to items related to Factor 2, and sex differences on items related to Factor 3 were minimal and mixed.

Bartol's (1974) replication and extension of Manhardt's study compared the job orientation of males and females majoring in business with those of female psychology majors. Her results indicated that male and female business majors differed significantly only on Manhardt's Factor 2 (work environment and interpersonal relationships), with females scoring higher than males on this factor. In addition, both male and female business majors differed significantly from psychology majors on all three factors. Bartol concludes that the variable of sex, in and of itself, may not be a useful predictor of job orientation and that one should consider an individual's particular area of training as a potential factor influencing his views of various job characteristics.

Admittedly, the relationship between job candidates' perceptions of the inducements offered by the prospective employers and their expectations of rewards to be derived from the job itself need further investigation. The correspondence between the individual's need set and the organization's

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reinforcer system (satisfaction) is an integral part of a theoretical framework by Darwis, Englad, and Lofquist (1964), which attempts to explain and ultimately predict an individual's adjustment to the work place. However, their theory has not received sufficient empirical investigation to substantiate its components. One factor which certainly affects a job candidate's perception of the inducements offered by prospective employers is his store of labor market information.

Sheppard and Belitsky (1966) have shown that a positive relationship exists between the number of information channels used and the success in finding a job. In addition, studies by Rees (1966) and Stigler (1962) have demonstrated the importance of labor market as well as specific job information for making informed choices about jobs. Rees (1966) asserts that possession of a greater amount of intensive job relevant information, i.e., in-depth information concerning a job offer already received, will help the job candidate make a more informed choice. Stigler (1962) asserts that additional information obtained through increased search will result in higher starting salaries as well as subsequent salaries later in the job candidate's career.

The combined findings from Rees and Sheppard and Belitsky provided the framework for the studies conducted by Ullman and Gutteridge and served as the basic framework for present study as well. The focus of the present study was primarily concerned with an examination of the impact of job relevant information on search behavior of males and females and a comparison of the findings with those obtained in the Ullman and

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Gutteridge studies. That is, of particular interest was a comparison of the findings for college graduates in the two different settings and contexts of the previous studies and the present study.

#### METHOD

The subjects were 85 inexperienced persons completing their bachelors or masters degrees in the field of education who were seeking their first teaching jobs in public or private schools during the 1969-70 school year. All of the subjects were registered with the teacher placement bureau of the University of Wisconsin.<sup>3</sup> The data used in the study were obtained from two questionnaires and by monitoring of the operations of the teacher placement bureau. Originally 200 persons were contacted but only 85 provided correctly completed questionnaires and took a new teaching job.

The first questionnaire was completed during the initial stages of the subjects' job search shortly after their registration with the teacher placement bureau. This questionnaire required subjects to indicate the likelihood of job acceptance which they ascribed to the individual levels of five job factors: type of position, grade level of position, size of community location, and starting salary. The second questionnaire, completed after the subjects had finished their job search process, required the subjects to indicate their perceived satisfactions with the job they had accepted and with the service provided to them by the placement bureau.

The operation of the placement bureau involved the use of a computer to make over 2000 placements a year for recent and non-recent graduates of the university. The computer was used to suggest "acceptable" interviews



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to a placement consultant who made final interview recommendations by adding or deleting interviews from the computer listings, based on the data in the candidates' files which at the time of registration. On the basis of the computer listings, employers received nomination notices and candidates received vacancy notices for the appropriate job-candidate matches. The candidates then made arrangements for interviews with the employers.<sup>4</sup>

The original 200 subjects had been randomly assigned to experimental and control groups of 100 subjects each. Of the 85 usable subjects in the present study, 40 were control subjects and 45 were experimental subjects. The control and experimental subjects received the same kinds of information regarding job vacancies from the placement bureau. However, the experimental subjects also received additional information from this researcher through the placement bureau operation concerning the "quality" of the jobs with which they had been matched. This measure of job quality was computed using the procedures described in Ford, Huber, and Gustafson (1972) and was based on the subjects' ratings of various levels of the job factors. Presumably, this additional bit of information enabled the candidate to do additional pre-screening of jobs referred to him, hopefully increasing the likelihood of his finding the "best" jobs rather than mere "acceptable" ones, based on the implicit importance of the job factors to the candidate.

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Job search and job choice behavior of the subjects were observed in terms of five dependent variables: number of job opportunities (vacancies), length of job search, salary for job accepted, satisfaction with the job accepted, and satisfaction with the service provided by the placement bureau.

Ullman and Gutteridge (1974) reported their results for a total sample of male subjects used in their studies. However, an unpublished study by a colleague of this researcher (O'Connell, 1971) indicated differential evaluation of job opportunities by males and females. In addition, other studies have found evidence of sex effects in decision making tasks (Vinacke, 1969). Therefore, the data of the present study are analyzed in terms of differences on the five dependent measures for males and females.

One could argue that the job factors rated by the subjects in this study are more indicative of work and living environment, as opposed to long-term career objectives. It was thus hypothesized that males in general would differ from females in terms of outcomes on the dependent measures and that females would give greater consideration to the additional information in the experimental condition than would males. This hypothesis was based in part on Manhardt's (1972) findings that females tended to rate higher than males those job characteristics related to pleasant interpersonal relationships and comfortable working conditions, whereas males tended to rate higher than females those job characteristics related to long-term objectives. Thus, females in the experimental condition would have higher satisfactions with their accepted jobs and higher satisfactions with the service provided by the placement bureau than would experimental males.

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Moreover, since experimental subjects received more service from the placement bureau in terms of more information concerning the jobs with which they had been matched and since Stigler (1962) contends that additional job relevant information obtained through increased search presumably results in higher starting salaries, it was further hypothesized that experimental subjects would differ significantly from control subjects in terms of outcomes on the dependent measures. In particular, it was hypothesized that, compared to control subjects, experimental subjects would have, on the average, significantly longer search times, higher satisfaction with their accepted jobs, higher satisfaction with the service provided by the placement bureau, and higher salaries associated with their accepted jobs.

#### RESULTS

Table 1 summarizes the mean values of the job search outcome (dependent) variables and Table 2 summarizes the correlations between the number of job referrals and the remaining four measures of the returns to search. As seen from Table 1, males in general were significantly less satisfied than females with the jobs which they accepted. In addition, males were less satisfied with the service provided by the placement bureau though the difference was not significant at the .05 level and beyond. Males, in general, received significantly more job referrals on the average than did females even though there were substantially fewer males than females in the total sample. Apparently males were in great

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demand during the particular recruiting year in which this data was collected which may have served to raise their level of aspiration for the particular kind of job they desired. On the other hand, the fact that males received more job referrals and hence possibly more job offers may have served to increase the cognitive dissonance associated with their final choices. Like the subjects in the Vroom and Deci (1971) study, the perceived attractiveness of the accepted job for the male subjects in the present study may have decreased from its initial level. This would have been possible especially for an experimental male subject if he did not report the acceptance of a job offer immediately to the placement bureau and he therefore continued to receive referral notices up until the time he reported his job acceptance. These subsequent referrals could have included one or several jobs of a higher "quality" than the one he had actually accepted. Also, while males received, on the average, higher starting salaries than did females, factors other than salary must have been given greater weight by the males to result in their having lower satisfactions with the jobs they actually accepted.

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Insert Table 1 Here

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Insert Table 2 Here

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Closer examination of the data revealed that those males in the experimental condition did tend to give greater consideration to the additional data available to them regarding the jobs to which they had been referred than did females in the experimental condition. Experimental males were significantly less satisfied than experimental females with the placement bureau service ( $p < .025$ ) and were significantly less satisfied than experimental females with their accepted jobs ( $p < .001$ ). Therefore, the first hypothesis of this study was supported.

With respect to the hypothesis that experimental subjects would differ significantly from control subjects on the dependent measures, on the average, experimental subjects a) received higher salaries, b) had longer search times, c) had higher satisfactions with their accepted jobs and d) had lower satisfactions with the service provided by the placement bureau than did control subjects, but none of these differences were statistically significant at the .05 level and beyond. Finding (c) can be attributed primarily to experimental females and finding (d) can be attributed primarily to experimental males. Thus, while the second hypothesis was not supported statistically, findings (a), (b), and (c) were in the predicted direction, whereas finding (d) was not. This latter finding suggests that the subjects' views, especially those of the experimental males, of the placement bureau were relatively independent of the process or actual service provided and were more outcome-related. After all, they did receive more service than did control subjects.

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What is more interesting, however, are the relationships between search behavior and the returns to search shown in Table 2. All subjects had the option, at any time, of terminating the job referrals which were being sent to them. These were sent weekly to the subjects following each week's computer run of the job candidate and employer files by the placement bureau. Therefore, we can interpret the number of referrals received by a subject as indicative of his extensive job search behavior. While most of the correlations in Table 2 are not statistically significant, the direction of the relationships are nonetheless important.

Stigler (1962) has proposed that increased search by job candidates will lead to a higher salary offer. However it appears that increased search may have been associated with lower salary offers for many of the subjects in this study except, perhaps, for females in the experimental condition. For example, for males in the control condition, increased search on their part was associated with significantly lower salary offers. It is surprising that this relationship was not statistically significant for males in the experimental condition since a) experimental subjects in general and experimental males in particular had, on the average, a larger number of job-referrals than control subjects, and b) experimental subjects, on the average, had longer search times as well as higher salaries than control subjects. We therefore tentatively conclude that for some subjects, particularly males, increased job search may very well result in lower salaries associated with the final choices. Of course we recognize the

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qualitative differences among the subjects in the present study and those of the Stigler (1962) study. More specifically, Stigler proposes that for a given person, search will lead to a higher salary offer, but the mean offer received by a subject will not be affected by more searching. Since only the salary of the job accepted is correlated with an extensive job search measure, i.e., number of referrals and not the highest salary offer, we cannot conclude that our findings are in complete disagreement with those of Stigler.

It also appears from Table 2 that, for the experimental subjects, a greater amount of extensive job information was associated with lower satisfactions for the final choices. Although this relationship was not statistically significant, the direction of the result is consistent with the finding of Ullman and Gutteridge (1974). The opposite, however, was true for control subjects, i.e., a lack of extensive information was associated with greater job satisfaction for control subjects, an interpretation not considered by Ullman and Gutteridge but certainly possible. With fewer alternatives to consider, choice was presumably easier and there was less ambivalence for control subjects.

Finally, it appears that males in general were more critical of the service provided by the placement bureau than were females, with experimental males being the most critical. Again, since demand for male teachers was apparently higher than demand for female teachers during the period of the study, increased extensive job information, i.e., number of

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job referrals, was associated with higher satisfaction with the placement bureau service for females while the opposite was true for males. This relationship was significant for female subjects in the control condition. Apparently, the additional information available to experimental female subjects did not influence their evaluation of the placement bureau as much as it did the experimental male subjects.

#### SUMMARY AND CONCLUSIONS

This study has dealt with the relationship between the volume of job search and the returns to search for private and public school teachers. Quite often teachers may not make visits to the school where they will be working because school systems often cannot afford the costs associated with interviewing a number of prospective job candidates. Therefore, they are forced to make job choice decisions on the basis of information provided them at the job interview, oftentimes conducted on the premises of the placement bureau. Unlike business and science graduates, who often have the added advantage of being able to make plant visits at company expense which serves to increase the amount of intensive job information available to the job applicants, this source of additional information is usually not available to applicants for teaching positions in private as well as public schools. The present study attempted, indirectly, to provide a measure of intensive job information to a sample of teaching applicants and to observe the resulting impact of this information on their subsequent job search and job choice behavior. It appears, from the results of this study, that males and females make differential use of this information with the impact of such information on job search behavior being greater for males than for



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females. Indeed, some of the findings of the present study, while supporting those of the Ullman and Gutteridge studies, are interesting and have important implications. For example, the fact that experimental male subjects were the least satisfied with their accepted jobs and the service provided by the placement bureau raises a number of questions as to why this was so. Maybe a tendency to be satisfied is generally lower in males than in females, or it could be culturally more acceptable for males to be dissatisfied. This conclusion is quite speculative although research in other areas offers some support for the notion that males have higher expectations and would thus be less satisfied if the outcomes did not meet with their expectations. For example, research on sex differences in performance expectations has shown a consistent trend of lower expectations among females than males (Brandt, 1958; Feather, 1969; Crandall, 1969; Ryckman and Sherman, 1972; Deaux and Farris, 1973).

While other field conditions, similar to those experienced in the Ford, et. al. (1972) study, may have contributed to the outcomes of this study, we believe that only through additional research concerning the returns to job search can increased insight into and understanding of differential search patterns and payoffs for labor market sub-groups be gained. Not only is sex an important variable for examining labor market subgroups, but other subgroups partitioned on the basis of age, race, prior military history, past criminal records if any (e.g., drug users),

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and many other variables offer potential payoffs to our understanding of the dynamics of the labor market search patterns for these subgroups. The present study hopefully provides additional insight for one particular subgroup of the work force population.

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FOOTNOTES

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2. Requests for reprints should be sent to David L. Ford, Jr., Department of Administrative Sciences, Krannert Graduate School of Industrial Administration, Purdue University, West Lafayette, Indiana 47907.
3. At the time of registration, candidates could specify the type of job (teaching, coaching, administrative, etc.), level (i.e., elementary, jr. high, etc.), location (even specific city in many cases), size of community desired, salary desired, specific duties desired, etc.
4. The subjects were notified only of jobs which met their minimum requirements; e.g., if a subject desired only a high school job he was not notified of jobs at any other level.

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TABLE 1  
MEAN VALUES OF DEPENDENT MEASURES

Job Search Measure	Total Group N=85	Male N=19	Female N=66
Mean Number of Job Referrals	18.4	32.2	14.4 <sup>a</sup>
Mean Salary of Job Accepted	7066	7284	6895
Mean Length of Search (Weeks)	22.4	23.5	22.2
Mean Satisfaction With Job Accepted	87	79	90 <sup>a</sup>
Mean Satisfaction With Placement Service	65	58	65

<sup>a</sup>Difference between males and females significant at the .005 level of significance.

TABLE 2  
RELATIONSHIP BETWEEN NUMBER OF JOB REFERRALS AND RETURNS TO SEARCH  
BY SEX - TREATMENT SUBGROUPS

Measures of Returns to Search	<u>EXPERIMENTAL</u>		<u>CONTROL</u>	
	Male (10)	Female (35)	Male (9)	Female (31)
Length of Search (Weeks)	.31	.10	.28	-.01
Salary of Accepted Offer	-.17	.09	-.95 <sup>a</sup>	-.05
Satisfaction with Job Accepted	-.33	-.12	.20	.06
Satisfaction with Placement Service	-.49	.12	-.29	.32 <sup>b</sup>

<sup>a</sup>p < .01

<sup>b</sup>p < .05



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